about the streets in the deep sleep of fatigue; everything and everybody looked utterly wretched and miserable. At every corner were the bloody skeletons and entrails of horses, off which every scrap of flesh had been cut; but bread was not to be had for love or money. In the hospital *enceinte* the same thing was going on. Four thousand men had collected there, and the *débris* they left behind required the hard work of relays of men, during several days, to remove. All the 2nd September, like the 1st, we were engaged in performing amputations, excisions, and in removing balls and pieces of shell deeply lodged, only interrupted, from time to time, by calls to see some fresh arrival.

In the evening, after a hard day's work, we got a summons to say that in the town were large numbers of wounded untended. A party of us went down. In every second house, almost, there were wounded men; the theatre was full of them; the church was full of them; other public buildings were full of them. Some of these we had transported to our own hospital; to others we administered what comfort we could. Subsequently, aid arrived from other ambulances, and from the military medical officers; but for the first few days the *encombrement des malades*, as the French call it, was almost enough to make one give up in despair. That evening, to my great relief, I heard from Dr. Frank, and that he was safe. When I saw the village in which he was in flames, and knew it had been the scene of a desperate fight, I feared we might never again see him alive. Indeed, at one time, and with too much reason, he had given himself up for lost. All by himself, he tied the carotid artery for a wound of the face, and performed other operations, but he had not sufficient help. There were two cases, he afterwards said, where amputation should have been performed at the hip-joint, but had to be left undone.

ON THE CLIMATE OF ALGERIA.*

By J. HENRY BENNET, M.D.,
Late Physician-Accoucheur to the Royal Free Hospital.

A RESIDENCE of eleven successive winters on the north shore of the Mediterranean, and an attentive study of meteorological phenomena during that period, have enabled me to arrive at tolerably precise and clear conclusions respecting the winter climate of this region of the Mediterranean area. At the close of the winter before last, however, I was still uncertain as to the real nature of the climate of the south western or Algerine shore of the Mediterranean, so conflicting are the statements respecting it. According to some, it is a dry tonic climate, owing to the vicinity of the great desert of Sahara; according to others, it is hot, moist, and relaxing, owing to the combined influence of the desert, of the Mediterranean Sea, and of the Atlantic Ocean.

Wishing to judge for myself, after reading all I could find on Algeria, I started from Marseilles on the 13th of April; arrived at Algeria on the 15th; made three exploratory journeys, east to Fort-Napoleon, south to Tenet-el-Had, and west to Oran, where I arrived on the 30th. From thence I passed over to Cartagena in Spain. By bringing what I knew already of Mediterranean meteorology to bear on what I saw in Algeria, botanically, meteorologically, and geologically, during these journeys, I was able to arrive at certain definite conclusions. By comparing these conclusions with the evidence of impartial observers, and especially with that of Dr. Armand, a military surgeon, who has written an exhaustive work on the climate and diseases of Algeria, I have attained a clear idea of the Algerine climate, which I will endeavour to convey to my hearers as briefly as possible. I would remark that in choosing this subject for a paper I have been influenced by the fact that, during last winter and spring, I saw in the south several persons who had been sent to spend the winter in Algeria, from Newcastle and its neighbourhood; and, therefore, I presume that the question of its climate possesses some interest for the medical practitioners of the northern capital of England.

Under the name of Algeria is now comprised the greater part of the south-western shore of the Mediterranean, occupied by the Atlas mountains. These mountains extend from Tunis eastward, to Morocco and the Atlantic westwards. To the north it is limited by the Mediterranean, and to the south by the great desert of Sahara. The width of this region, from east to west, is about four hundred miles. The depth from north to south, from the Mediterranean to the desert, is about one hundred and twenty miles. The Atlas chain is not constituted by one range of mountains extending from east to west, as is generally supposed, but by three parallel ridges, the lesser, the middle, and the greater Atlas, with connecting spurs and buttresses, and with intervening valleys and elevated plains. Thus the whole region is a kind of Switzerland, a mountain country, which would be the seat of glaciers, lakes, and large rivers, were the mountains high enough to reach the line of perpetual snow, as in Switzerland. But they are not; none attaining an elevation greater than seven thousand feet. There are, consequently, no perpetual snow, no glaciers, and the large rivers which are fed by such an origin do not exist. The rivers are small, and mere torrents in summer. Still the mountain-ridges and summits, being from one to seven thousand feet in elevation, are high enough and cold enough to precipitate water in abundance out of moisture-laden clouds in winter, and to be covered with snow and ice in their higher regions for several months every year.

The meteorology of Algeria is very peculiar, but is easily understood on reference to the map, and on the consideration of the cosmical elements which northern and central Africa present. North of the belt of mountain land which constitutes Algeria, is the Mediterranean Sea, a thousand miles in width, and from three to four hundred in breadth. South, we have the great sandy desert of Sahara, the hottest region on the earth, which occupies a considerable portion of the continent of Africa. As a necessary result of the constant heating, rarefaction, and rising into the higher atmospheric regions of the superincumbent air, there is always a vacuum forming on the desert of Sahara, which the atmosphere of the surrounding regions rushes in to fill. This rushing of air is necessarily greater from the cool regions of the north than from the warm regions of the south. Thus, during nearly the entire year, winter and summer, moist north-east, north, and north-west winds are rushing over mountainous Algeria towards the desert. It is stated that the wind at Algeria only blows directly from the desert thirty days in the year. If it be so for 334 days in each year, the wind that passes over Algiers and Algeria is a moist sea-wind. The same phenomenon, in a modified way, occurs from the same causes in Egypt. I am told that the wind blows from the north up the Nile, thereby much facilitating navigation nine months in the year.

The atmosphere at Algiers and in Algeria must therefore be moist, winter and summer, except during the few days that it blows, as a dry hot wind, from the desert. That it is moist is proved by the large quantity of rain that falls during the six winter months, and by the very heavy night dews that reign all through the summer.

According to Dr. Armand, the mean rain-fall at Algiers from 1839 to 1865 was 36 inches, 31 of which, or six-sevenths, fell in winter, and only 5, or one-seventh, in summer. Dr. Scoresby Jackson gives the same mean rainfall. The distribution was as follows. November, 5 in.; December, 8 in.; January, 6 in.; February, 5 in.; March, 3 in.; April, 4 in.; May, 1¼ in.; June, ¼ in.; July, 0 in.; August, ¼ in.; September, 1 in.; October, 2¾ in. Rain fell on ninety days or nights; on seventy-eight days in the six winter months; on twelve days in the six summer months

In some winters, the rainfall has been even more, amounting to 40 or 45 inches. The large amount of rain which falls will be best understood when we compare it with that of southern England, where it varies from 16 inches to 22, and with that of Nice, where it is 25. On the east coast of Spain, the rainfall is even much less, not amounting, probably, to more than 12 or 14 inches, and often not to that.

Even in summer, when the Atlas mountains, scorched by an African sun, have become so hot that they no longer precipitate moisture from the winds that rush over them, hurrying towards the great desert, and when little or no rain falls, the air is still saturated with water pumped up from the broad Atlantic, and from the Mediterranean. At night, as soon as the temperature falls a few degrees, such heavy dews form that a double tent is saturated, according to Dr. Armand, in the hottest and finest weather.

The influence of the copious and frequent winter rains, and of the heavy summer dews, is evident in the luxuriant vegetation of Algeria. I expected to find a sunburnt arid region, the portal of the barren desert of Sahara; instead of which, I found a garden of Eden. The valleys were knee-deep with natural herbage and flowers, or with grain crops where sown, and the mountains were clothed with grasses, brush-wood, and timber from base to summit. The verdure, when I was there in April, extended far into the desert. The valleys and mountains of Algeria, indeed, were nearly as verdant and luxuriant as are those of Switzerland.

In the interior mountain-land, even at an elevation of 1,500 or 2,000 feet, in winter the fall of snow is often great, and the frosts severe. During the retreat from Constantine in 1845, more than five hundred soldiers lost their lives from cold and frost, as in the retreat from Moscow. The porter of the garden of acclimatisation at Algiers is a living illustration of this disaster. He walks about on two wooden legs, having lost both his own from frost during this retreat.

At Algiers proper, the climate is much milder and more equable,

* Read in the Public Medicine Section at the Annual Meeting of the Association in Newcastle-on-Tyne, August 1870.

owing to the latitude, which is five degrees more south than Marseilles, to the proximity of the sea, and to the shelter of the Sahel hills, which rise behind the town. Even at Algiers, however, sharp frosts occasionally occur. Thus Colonel Playfair, the English Consul, wrote last January to the *Gardener's Chronicle* that, on the last two nights of the year 1869, a severe and exceptional frost occurred which killed most of the tender plants in his greenhouse.

From the above data, it will be seen that, speaking in a general sense, the winter climate of Algiers is mild and moist—mild from latitude and proximity to the sea, and moist owing to the all but constant prevalence of sea winds. The average monthly temperature is higher than on the Genoese Riviera, or the sheltered region of the north Mediterranean shore, not so much, perhaps, from greater heat in the day, although the day heat is rather greater, as from a higher temperature at night.

These facts being accepted, and they cannot be controverted or denied, their application to the treatment of disease depends on medical doctrines. If it is held that a mild moist climate is required for chronic chest-disease, for which a southern residence in winter is principally in request, then Algiers answers the indication, as do Pau and Madeira. But Algiers is much warmer than Pau, and not so warm as Madeira. If, on the contrary, the doctrine entertained is the one that I myself support, viz., that in chronic chest-diseases, and especially in pulmonary consumption, constitutional treatment is principally to be considered, and that a bracing tonifying treatment is indicated, then Algiers is not the right place. A dry cool climate, such as that of the east coast of Spain, or of the Genoese Riviera, better fulfil the indications.

Practically, my own limited experience respecting Algiers accords with these latter views. I have seen many consumptive people who have wintered at Algiers, and can scarcely call to mind one thoroughly satisfactory case, such as I constantly meet with in the drier and more bracing climate of the Riviera. On the other hand, I should presume that in some exceptional forms of consumption, in which there is great nervous irritability, with constant tendency to pulmonary hæmorrhage, the softer moister climate of Algiers may be more favourable than that of eastern Spain or of the north shore of the Mediterranean. But then these are generally the unfavourable cases, the cases that do well no where.

In some forms of nervous disease, of neuralgia, of idiopathic asthma, and again when a mere mild winter climate with change of scene is required to recruit a tired mind and body, I think a winter at Algiers might be safely tried. To such as merely require rest and change, a residence at Algiers during the winter months offers many charms.

ON THE ADVANTAGES TO BE DERIVED FROM CURVING THE HANDLES OF MIDWIFERY FORCEPS.*

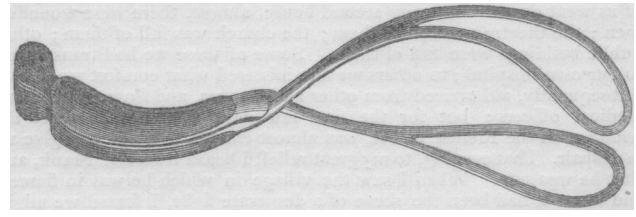
By J. H. AVELING, M.D., Rochester.

CURVING the handles of midwifery forceps is a practice of no recent date. In fact, the first pair of forceps used for midwifery purposes had one of the handles curved. Chapman and Levret curved the ends of the handles of their forceps, in the one case inwards and in the other outwards, so as to form hooks. Du Bois, the handles of whose forceps were of wood, also curved their extremities outwards; and Dr. Bedford of New York curves the ends of his forceps handles backwards. Besides these, there are several other forms of midwifery forceps, the handles of which are curved in various forms; but those now referred to illustrate the whole of the kinds I have been able to meet with.

There are a great many points essential in a good pair of forceps; but over all others two dominate, viz., ease of application and power of traction. To attain these two important ends, I propose to curve the handles of midwifery forceps backwards throughout their whole length. By this simple modification, ease of application is attained by removing the handles well out of the way of the operator when passing the blades and locking the instrument; and most efficient traction power is insured by the handles being placed at an angle instead of parallel to the line of traction. Another advantage from this backward curving of the handles is, that they become less in the way of the patient's legs when the child's head sweeps forward over the perinæum.

There can be no advantage in having the handles of forceps straight, except for the purpose of compression; and we know that the amount of power required of this kind is very small. The forceps of the late Sir James Simpson and of Dr. Inglis demonstrate this. Any lateral motion required can be as easily effected by the curved handles, and any rotatory action can be better produced by them.

From the construction of all sorts of midwifery forceps, we can detect that the failure in the straight-handled form is the want of traction-power which they afford. We therefore find upon them hooks, wings, grooves, rings, openings for the fingers between the blades, and many other ingenious contrivances to prevent the hand from losing its hold. By simply curving the handles backwards, all these are dispensed with. No new forceps are required. You have only to send your forceps to the instrument-maker and request him to curve their handles, and he will do it without in the least altering the form of any other parts of the instruments.



The pair which I now show you have been so altered, and I have used them several times myself, and my friends have used them also This other pair have been made in imitation of them by Messrs. Weiss, 62, Strand.

* Read in the Midwifery Section at the Annual Meeting of the British Medical Association in Newcastle-upon-Tyne, August 1870.

POISONING BY STRYCHINE IN THE DOG: A NOVEL METHOD OF TREATMENT.

By JAMES A. EAMES, M.D.,
Resident Medical Superintendent of the Donegal District Lunatic Asylum, Letterkenny.

A REMARKABLE case of successful treatment in poisoning by strychnine having lately come under my observation, a statement of the particulars may not be devoid of interest to members of the Association—the more so, as strychnine has been recently used to destroy some valuable hounds belonging to the Kilkenny pack.

I may premise by saying that, some years ago, while walking in a remote part of the country, I happened to see a dog suspended by the hind legs and hanging to a tree. On my asking the owner his reason for placing the animal in this position, he informed me that it had taken poison on the mountain, and that this was the means which he was adopting for its cure, having previously made it swallow a quantity of butter. He added that on a former occasion he had saved the same dog's life in a similar way and under similar circumstances.

About three months since, a terrier bitch of my own took some strychnine which had been laid for rats; and when I saw her she was almost moribund, being blue at the lips, frothing, unable to stand, and on being touched, however lightly, suffering from the most violent tetanic spasms. I immediately poured about half a pint of sweet oil down her throat, and had her tied up to a beam by the hind legs for about six hours. During this time I visited her frequently, and had her taken down once or twice for a few minutes; but the spasms continued to recur until she had been suspended for the period above mentioned, after which symptoms of recovery gradually showed themselves. Next day she was quite well. Strange to say, she was with pup at the time, and shortly afterwards gave birth to three puppies, all of which were alive.

The great success which in this case attended the carrying out of the measures which I have just described encourages me, even in the absence of an extended experience of their efficacy, to place these details on record.

The explanation of the *modus operandi* of the treatment may perhaps be regarded as a physiological one, and as depending on the fact that the congestion of the vessels of the brain produced by the prolonged suspension counteracted the effects of the poison on the nervous system. The oil, of course, acts only mechanically in preventing, probably, both the corrosive action of the poison on the mucous membrane of the stomach and its further absorption into the organism at large.

In the case of the human subject, there seems to me to be no reason why there should not be a mode of treatment based on similar principles; and it is a question whether, in poisoning by strychnine, the fixing of the body on an inclined plane, with the head partially downwards and the back applied to the plane, might not be attended with good results.